AMENDMENTS TO THE CLAIMS

1. (currently amended) A method for the in-situ removal or remediation of contaminants in a soil formation containing a subsurface groundwater aquifer, the method comprising the steps of:

injecting a first oxidant into the aquifer at ~~an~~ a first injection point to create a first volume of influence ~~of the first oxidant~~ in the aquifer ~~thereby treating the contaminants contained within the volume of influence~~; ~~and~~

injecting a compressed gas into the aquifer at the first injection point to increase the size of the first volume of influence ~~of the first oxidant~~;

injecting a second oxidant into the aquifer at a second injection point to create a second volume of influence in the aquifer; and

injecting a compressed gas into the aquifer at the second injection point to increase the size of the second volume of influence.

2. (currently amended) The method of claim 1, wherein the injection of the compressed gas into the aquifer ~~also~~ forces the groundwater in the aquifer away from the first injection point into a surrounding area thereby transporting the first oxidant into the surrounding area.

3. (original) The method of claim 2, wherein the surrounding area includes the saturated zone.

4. (original) The method of claim 2, wherein the surrounding area includes the smear zone.

5. (currently amended) The method of claim 3, wherein the injection of the compressed gas into the aquifer forces the groundwater into the ~~surrounding area~~ saturated zone, thereby extracting contaminants from soil adjacent to the ~~surrounding area~~ saturated zone.

6. (currently amended) The method of claim [5] 1, further comprising the step of:

after ~~the injection step~~ injecting a compressed gas into the aquifer at the first injection point, allowing the groundwater to return to the first volume of influence ~~of the first oxidant~~ from the surrounding area by discontinuing injection of the compressed gas into the aquifer at the first injection point for a period of time, thereby returning the contaminants extracted from the soil to the first volume of influence ~~of the first oxidant~~.

7. (currently amended) The method of claim 1, wherein the first oxidant is selected from the group consisting of a hydrogen peroxide solution, an ozone/air mixture, an ozone/oxygen mixture, and combinations ~~thereof~~ of an ozone/air mixture and an ozone/oxygen mixture.

8. (cancelled)

9. (currently amended) The method of claim ~~8~~ 25, wherein the first oxidant is a hydrogen peroxide solution and the second oxidant is an ozone/oxygen mixture.

10. (currently amended) The method of claim ~~8~~ 25, wherein the concentration of hydrogen peroxide in the hydrogen peroxide solution is less than about 70% by weight in water.

11. (currently amended) The method of claim ~~8~~ 25, wherein the first and second oxidants chemically react with each other to form hydroxyl radicals.

12. (currently amended) The method of claim 1, further comprising the step of:

injecting ~~a~~ the second oxidant in combination with compressed gas into the aquifer to treat the contaminants contained within the aquifer.

13. (cancelled)

14. (original) The method of claim 1, wherein the compressed gas is selected from the group consisting of air, nitrogen, oxygen, carbon dioxide, and any combination thereof.

15. (cancelled)

16. (currently amended) A method for the in-situ removal or remediation of contaminants in a soil formation containing a subsurface groundwater aquifer, wherein the contaminants are spread out by diffusion, movement of the groundwater, and other mechanisms to form a contaminant plume, the method comprising the steps of:

~~alternately~~ sequentially injecting, in any order, a hydrogen peroxide solution, an ozone/oxygen mixture, and compressed gas into the aquifer ~~at an injection point~~, the hydrogen peroxide solution and the ozone/oxygen mixture being injected from first and second injection points, respectively, to treat the contaminants contained within the groundwater, wherein the injection of the compressed gas forces the groundwater away from the ~~injection point~~ first and second injection points into a saturated zone or smear zone of the contaminant plume, thereby transporting the hydrogen peroxide solution and the ozone/oxygen mixture into the saturated zone or smear zone of the contaminant plume.

17. (original) The method of claim 16, wherein the groundwater transported into the saturated zone or smear zone of the contaminant plume desorbs contaminants from soil adjacent to the saturated zone or smear zone of the contaminant plume thereby bringing such contaminants into solution to be subsequently treated.

18. (currently amended) The method of claim 17, further comprising the step of:

after the compressed gas injection step, allowing the groundwater to return to the first injection point from the saturated zone or smear zone of the contaminant plume thereby returning the contaminants desorbed from the soil to an area adjacent to the injection point.

19. (original) The method of claim 18, wherein the injection of the compressed gas is periodically cycled to agitate the contaminants to bring them into solution with the groundwater.

20. (currently amended) The method of claim 17, wherein a ~~second~~ third oxidant in combination with the compressed gas can be ~~alternately~~ sequentially injected into the aquifer to treat the contaminants contained within the aquifer.

21. (currently amended) The method of claim 17, further comprising the step of:

~~alternately~~ sequentially injecting, in any order, one or more oxidants and compressed gas into the aquifer at multiple injection points to optimize the direction and movement of the oxidants within the contaminant plume.

22. (currently amended) The method of claim 21, wherein the ~~alternately~~ sequential injection of one or more oxidants and compressed gas into the aquifer at multiple injection points increases the desorption and agitation of the contaminants into the groundwater.

23. (currently amended) A method for the in-situ removal or remediation of contaminants in a soil formation containing a subsurface groundwater aquifer, the method comprising the steps of:

intermittently introducing, individually and in any order, a first oxidant, a second oxidant, and compressed gas into the groundwater to treat the contaminants contained within the aquifer, wherein the introduction of each oxidant creates a volume of influence of each oxidant, wherein the introduction of the compressed gas increases the size of each volume of influence of each oxidant, and wherein the first oxidant and the second oxidant are injected at separate injection points.

24. (original) The method of claim 23, wherein a second oxidant in combination with the compressed gas can be alternately injected into the aquifer to treat the contaminants contained within the aquifer.

25. (new) The method of claim 1, wherein the second oxidant is selected from the group consisting of a hydrogen peroxide solution, an ozone/air mixture, an ozone/oxygen

mixture, and combinations of an ozone/air mixture and an ozone/oxygen mixture, with the proviso that

if the first oxidant is a hydrogen peroxide solution, the second oxidant must be an ozone/air mixture, an ozone/oxygen mixture, or a combination of an ozone/air mixture and an ozone/oxygen mixture; and

if the first oxidant is an ozone/air mixture, an ozone/oxygen mixture, or a combination of an ozone/air mixture and an ozone/oxygen mixture, the second oxidant must be a hydrogen peroxide solution.

26. (new) The method of claim 1, wherein the first injection point and the second injection point are spaced from each other.

27. (new) The method of claim 1, further comprising the step of:

after injecting a compressed gas into the aquifer at the second injection point, allowing the groundwater to return to the second volume of influence from the saturated zone by discontinuing injection of the compressed gas into the aquifer at the second injection point for a period of time, thereby returning the contaminants extracted from the soil to the second volume of influence.

28. (new) The method of claim 1, wherein the steps are performed sequentially and in any order.